

REMARKS

Applicants respectfully request reconsideration of the present application in view of this response. Claims 1-19 are pending in the present application, claims 1 and 14 have been amended, claims 15-19 have been added, and claims 1, 14, 15, and 19 are independent claims.

CLAIM OBJECTIONS

Claims 1 and 14 stand objected to due to alleged informalities. Specifically, the Examiner has objected to "the geometries to be written on the plate" (claim 1, line 7), "in the fractured database" (claim 1, line 10), "per-forming" (claim 1, line 12), "the geometries to be written on the plate" (claim 14, lines 7 and 8), "in the fractured database" (claim 14, line 12).

Applicants have amended claims 1 and 14 taking into account the suggestions made by the Examiner. Further, Applicants assert that all such amendments made to claims 1 and 14 have not been made to overcome any prior art rejection, and have been made for no other reason than to correct the alleged informalities as indicated by the Examiner. As such, Applicants respectfully request that the above objection be withdrawn.

PRIOR ART REJECTIONS

Rejections under 35 U.S.C. §103(a)

Claims 1-14 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Teitzel et al. (U.S. Patent No. 5,533,170, hereinafter referred to as "Teitzel") in view of Kelley et al. (U.S. Patent No. 5,701,405, hereinafter referred to as "Kelley"). Applicants respectfully traverse this rejection.

Lack of Motivation to Combine Reference Teachings

Initially, Applicants submit that the Examiner has not supplied evidence of the necessary motivation needed to lead one of ordinary skill in the art to combine the teachings of Teitzel and Kelley. Accordingly, absent such motivation, a *prima facie* case of obviousness under 35 U.S.C. §103(a) has not been established and the rejection must be withdrawn.

Applicants direct the Examiner's attention to two recent cases decided by the Court of Appeals for the Federal Circuit (CAFC), In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed.Cir. 1999) and In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed.Cir. 2000). Both of these cases set forth very rigorous requirements for establishing a *prima facie* case of obviousness under 35 U.S.C. §103(a). To establish obviousness based on a combination of elements disclosed in the prior art, there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the Applicants. The motivation suggestion or teaching may come explicitly from one of the following:

- (a) the statements in the prior art (patents themselves)
- (b) the knowledge of one of ordinary skill art, or in some cases,
- (c) the nature of the problem to be solved.

See Dembiczak 50 USPQ at 1614 (Fed.Cir. 1999).

In order to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), the Examiner must provide particular findings as to why the two pieces of prior art are combinable. See Dembiczak 50 USPQ2d at 1617. ***Broad conclusory statements standing alone are not "evidence".***

The alleged motivation asserted by the Examiner, for combining Teitzel with Kelley, is: “Teitzel’s system would become more efficient, as the rendered data would be generated in a fast and inexpensive way, as recognized by Kelley in column 10, line 62-column 11, line 19.”

However, Applicants respectfully disagree with the Examiner's conclusion. The cited portion of Kelley merely recognizes that the invention of Kelley may "generate interpolated parameter values for pixels in a fast and inexpensive manner", and may reduce the "amount of hardware necessary for implementing direct evaluation of interpolated parameter values." None of which would motivate one of ordinary skill in the art to modify the teachings of Teitzel with the teachings of Kelley (Teitzel solves a problem somewhat similar through rendering, but in a different manner). Teitzel does not make any mention or suggestion of any interpolated parameter values, nor does Teitzel give any inclination of even the possibility of using interpolated parameter values. Accordingly, the cited portions of Kelley would not properly motivate one of ordinary skill in the art to combine the teachings of Teitzel with the teachings of Kelley.

Further, for example, the alleged motivation of improving "Teitzel's system would become more efficient, as the rendered data would be generated in a fast and inexpensive way, as recognized by Kelley in column 10, line 62-column 11, line 19", as cited by the Examiner on page 6 of the outstanding Office Action, dated October 18, 2004, makes use of impermissible hindsight reconstruction. The Examiner has used the present application as a blueprint, selected a prior art method relating to pattern generation system, and then searched other prior art for the missing elements without identifying or discussing ***any proper evidence of motivation to combine***, other than providing conclusory statements regarding the knowledge in the art, and providing cited portions of Kelley, which Applicants assert does not provide sufficient motivation (see paragraph above). ***Only Applicants teach a method for writing patterns on a light sensitive surface including a "second conversion" in "at least two of the beam processor units", as set forth in claim 1, not any of the prior art set forth by the Examiner.***

Combining prior art references without evidence of such a suggestion, teaching, or

motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. Dembiczak, 50 USPQ2d at 1617. Accordingly, Applicants respectfully submit that claims 1-14 are allowable for at least this additional reason.

Furthermore, the Examiner has not provided the requisite evidence to support his allegation that there is motivation to combine Teitzel and Kelley so as to render obvious that which Applicants have described. The Examiner has not provided any showing of a suggestion, teaching or motivation (other than the cited portion of Kelley, which Applicants assert is *not* proper motivation) to combine the prior art references to reject the claims in the present application, which is an essential component of an obviousness holding. The Examiner must explain the *reasons why* one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious (In re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) the examiner can satisfy the burden of showing obviousness of the combination "only by showing *some objective teaching in the prior art or that knowledge generally available* to one of ordinary skill in the art *would lead that individual* to combine the relevant teachings of the references"). Thus, the Examiner has not adequately provided a proper combination of Teitzel and Kelley to render claim 1 obvious.

Relying on common knowledge or common sense of a person of ordinary skill in the art without any proper specific hint or suggestion of this in a particular reference is not a proper standard for reaching the conclusion of obviousness. See *In re Sang Lee*, 61 USPQ 2d 1430 (Fed. Cir. 2002). Again, as stated above, Applicants respectfully assert that the cited portions of Kelley *do not* provide proper motivation for combining the references. Further, relying on obvious design choice as a reason for combining teachings of the various references is again not the proper standard for obviousness. *If the Examiner is relying on personal knowledge to support a finding of what is known in the art, the Examiner must provide an Affidavit or*

Declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2) and MPEP 2144.03(c). Accordingly, Applicants respectfully challenge the Examiner's alleged motivation and respectfully require the Examiner to withdraw the rejection or provide an Affidavit or Declaration as set forth above if the rejection is to be maintained.

Limitations of Claim 1 Are Lacking

The Examiner has acknowledged that Teitzel fails to teach or suggest a “second conversion” in “at least two of the beam processor units”, as claimed in claim 1, and has relied upon Kelley for teaching these limitations. Specifically, the Examiner has relied upon Kelley to make up for the deficiency of a “second conversion” performed in “at least two of the beam processor units, operating simultaneously but on different writing fields” (see outstanding Office Action dated October 18, 2004, page 5). However, even assuming *arguendo* that Teitzel could be combined with Kelley (which Applicants do not admit for at least the reasons set forth above) both Teitzel and Kelley fail to teach or suggest at least the method as claimed in claim 1.

As discussed in Applicants' prior response dated July 1, 2004, Teitzel discloses a multibeam data path based on parallel rasterizers including beam boards which do not convert or manipulate the data received, but merely function as a buffer for storing the data until it is needed (e.g., see column 11, lines 30-41). Further, Teitzel discloses a rendering processor 605 included within the geometry engine. The rendering processor 605 determines pixel intensity values by tallying contributions of geometric primitives at the pixel location being rendered. See Teitzel, col. 9, lines 60-62.

Kelley discloses a method and apparatus for evaluating a parameter interpolation function used in rendering images. A rendering device 460 partitions a display screen into four regions.

A processor 500 determines which of the partitioned regions a geometric entity 600 intersects, and inserts data pertaining to that geometric entity 600 into each region's individual geometric list. These geometric entity lists are then stored in one or more rendering pipeline list databases. A local coordinate generator 705 obtains the vertex coordinates defined relative to the display device coordinate system (i.e., global coordinate system) of the geometric entity 600, and generates the x and y coordinates in terms of the local coordinate system of a specific region of the display. A function transformation module 710 transforms the global parameter equation (defined with respect to the display device coordinate system) into a local parameter equation (defined with respect to the local coordinate system). A local parameter interpolation module 715 evaluates the parameter values for every pixel in the rendered region, which is covered by the geometric entity 600 using the local parameter interpolation function and the generated local coordinates for the corresponding pixels. Kelley does not, however, teach or suggest performing the “second conversion” in “at least two of the beam processor units”, as claimed in claim 1.

Instead, Kelley discloses a method and apparatus for the evaluation of a parameter interpolation function used in rendering images. Thus, Kelley provides an alternative method and apparatus for the rendering of images, and not the “second conversion” in “at least two of the beam processor units”, as claimed in claim 1. Accordingly, even assuming *arguendo* that Teitzel could be combined with Kelley, which Applicants do not admit (see lack of motivation section above), the incorporation of the teachings of Kelley into the disclosure of Teitzel, at most, provides an alternative method or apparatus for rendering images. Further, this alternative method or apparatus is performed by or included in a geometric entity of Teitzel, which the Examiner has acknowledged is not the “beam processor units” of claim 1. Thus, the teachings of Kelley clearly do not make up for the deficiencies of Teitzel with respect to claim 1. As such, Applicants respectfully assert that the combination of Teitzel and Kelley (which Applicants

assert are not combinable for the reasons set forth above) fail to teach or suggest all of the limitations of claim 1, and respectfully request withdrawal of the above rejection.

CLAIM 14

With respect to claim 14, claim 14 includes “parallel data processing means in the beam processor units”, which Applicants respectfully assert is also allowable for reasons somewhat similar to that which has been discussed above with regard to claim 1.

CLAIMS 2-13

With respect to claims 2-13, Applicants respectfully assert that claims 2-13 are also allowable for at least the reasons as discussed above with regard to claim 1, from which they depend.

NEW CLAIMS

Applicants have added new claims 15-19 by the present amendment, which are also believed to be patentable over the prior art. Although somewhat similar arguments to those emphasized above with regard to claims 1 and 14 may apply, claims 15-19 should be governed solely by the limitations present therein and should not be limited in any way by limitations or arguments set forth in other independent claims. Accordingly, allowance of each of the new claims 15-19 is respectfully requested.

CONCLUSION


Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-19 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Castellano at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

By



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